

Appln. No.: 10/656,392  
Amendment Dated July 21, 2006  
Reply to Office Action of April 21, 2006

MKPA-107US

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A solder preform for attaching an optical fiber having a diameter to a fiber attach pad, the solder preform comprising a body including solder at least on a bottom surface thereof, the body having a groove extending along a first face from a first end to a second end, the groove being larger in size than the optical fiber to allow alignment of the optical fiber within the groove such that the solder preform is configured to permit alignment of the optical fiber in first and second directions when the groove of the solder preform is placed over the optical fiber,

the groove having a height dimension and width dimension, wherein a ratio of said height dimension to said width dimension is about 1.1:1 or greater, wherein the groove provides 25  $\mu\text{m}$  to 105  $\mu\text{m}$  of total clearance between the optical fiber and a width of the groove, a bottom clearance of 25  $\mu\text{m}$  to 100  $\mu\text{m}$  underneath the optical fiber, and a top clearance of 35  $\mu\text{m}$  to 140  $\mu\text{m}$  above the optical fiber.

2. (Previously Presented) A solder preform according to claim 1, wherein a height of the groove is larger than a diameter of the optical fiber, allowing a range of clearance above and below the optical fiber.

3. (Previously Presented) A solder preform according to claim 1, wherein a width of the groove is larger than a diameter of the optical fiber, allowing a range of clearance on at least a side of the optical fiber.

4. (Original) A solder preform according to claim 1, wherein the body is formed as a geometric solid with at least one substantially flat face.

5. (Original) A solder preform according to claim 4, wherein the geometric solid is selected from a group consisting of a rectangular box, a cubical box, a cylinder, a semi-cylinder, a semi-sphere, a pyramid, and a cone.

6. (Original) A solder preform according to claim 1, wherein the body is formed from a metallic material.

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7. (Original) A solder preform according to claim 1, wherein the body is formed from a glass material.

8. (Previously Presented) A solder preform according to claim 1, wherein the body is formed into a substantially rectangular box having a height H of 0.38mm +/- 0.05mm, a groove height GH in a range of 0.26mm to 0.29mm, a width W in a range of 0.5mm to 1.5mm, a groove width GW in a range of 0.15mm to 0.23mm, and a length L in a range of 0.5mm to 1.5mm.

9. (Withdrawn) A method of making a solder preform for attaching an optical fiber having a diameter to a fiber attach pad, the method comprising the steps of:

- a) providing a block of solder material;
- b) stamping a shape from the block of solder material; and
- c) forming a groove on a first face of the shape extending from a first end to a second end, the groove being larger in width than that diameter of the optical fiber.

10. (Withdrawn) A method according to claim 9, wherein step c is performed as part of step b.

11. (Withdrawn) A method according to claim 9, wherein step c is performed by grinding the groove on the first face of the shape extending from the first end to the second end.

12. (Withdrawn) A method according to claim 9, wherein the step of stamping includes forming the shape from a group consisting of a substantially rectangular box, a substantially cubical box, substantially a cylinder, substantially a semi-cylinder, substantially a sphere, substantially a semi-sphere, and substantially a cone.

13. (Withdrawn) A method of using a solder preform for attaching an optical fiber having a diameter to a fiber attach pad, the method comprising the steps of:

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- a) providing the solder preform;
- b) placing the optical fiber over the fiber attach pad;
- c) placing the solder preform over the optical fiber and onto the fiber attach pad; and
- d) applying laser radiation in a manner such that the optical fiber is shielded from the laser radiation by the solder preform.

14. (Withdrawn) The method of claim 13, further comprising the step of aligning the optical fiber to receive a desirable optimized optical signal strength from an adjacent optical component.

15. (Withdrawn) The method of claim 13, further comprising the step of aligning the optical fiber to provide a desirable optimized optical signal strength to an adjacent optical component.

16. (New) A solder preform according to claim 1, wherein a ratio of said height dimension to said width dimension is about 1.5:1 or greater.

17. (New) A solder preform according to claim 1, wherein a ratio of said height dimension to said width dimension is about 1.1:1 to about 1.9:1.